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ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER HO, CHUONG T	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

SK

Office Action Summary	Application No. 09/909,190	Applicant(s) KRANS MO ET AL.	
	Examiner CHUONG T. HO	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4,7,11,13,14,16,17,19,20,22,24,27,28,30,32,33,36,38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,4,7,11,13,14,16,17,19,20,22,24,27,28,30,32,33,36,38 and 39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The amendment filed 02/06/07 have been entered and made of record.
2. Applicant's arguments with respect to claims 3-4, 7, 14, 11, 13, 16-17, 19-20, 22, 24, 27-28, 30, 32-33, 36, 39, 38 have been considered but are moot in view of the new ground(s) of rejection.
3. Claims 3-4, 7, 14, 11, 13, 16-17, 19-20, 22, 24, 27-28, 30, 32-33, 36, 39, 38 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 4, 7, 16, 17, 32, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Nguyen et al. (U.S. Patent No. 2002/0111167).

As to claim 3, Laiho discloses a telecommunication system for delivering a Short Message Service (SMS) message within a network capable of providing both voice services on a voice carrier and data services on a data only carrier, said telecommunication system comprising:

A mobile station (MS) supporting both voice services and data services, said MS being currently involved in a data session on said data only carrier (col. 1, line 56; col. 1, line 63; col. 3, lines 39-40);

A node in wireless communication with said MS for receiving said SMS message encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS as an electronic mail message over said data only carrier without disrupting said data session (col. 3, lines 45-51);

Wherein said node further operates to check whether said MS is involved in said data session prior to encapsulating said SMS message into said IP packet, said node transmitting said SMS message to said MS when said MS is not involved in said data session (col. 3, lines 37-38).

However, Laiho (6,061,572) is silent to disclosing wherein said MS transmits to said node a feature code indicating that said MS is in data mode when said data session begins, said node encapsulating said SMS message into said IP packet only when said node has received said feature code.

Nguyen et al. discloses wherein said MS transmits to said node a feature code indicating that said MS is in data mode when said data session begins, said node encapsulating said SMS message into said IP packet only when said node has received said feature code ([0016], The called MS has a Home Location Register (HLR) 15 that stores the called MS's user profile, status, and location information. A second MSC (MSC-2) 16 communicates through a second Base Station (BS-2) 17 with a calling MS 18. When the called MS switches to voice mode, it registers with the HLR. Thereafter,

when the calling MS places a voice call to the called MS, MSC-2 queries the HLR for location information. The HLR obtains a routing number from MSC-1 and returns the routing number to MSC-2. The voice call is then set up) ([0019], Thus, if the calling MS 18 then attempts to place a voice call to the called MS while it is in data mode, the call is immediately routed to voice mail, or the calling MS automatically receives a voice announcement that the subscriber is not available because the called MS has canceled its registration with the HLR.) ([0023], The HLR puts the called MS in a new state called "data" in the user profile to indicate that the called MS is operating in the data mode) ([0030], The HLR looks for the DMI in the user profile at 34 and determines that the called MS is in the data mode)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said MS transmits to said node a feature code indicating that said MS is in data mode when said data session begins, said node encapsulating said SMS message into said IP packet only when said node has received said feature code taught by Nguyen into the system of Laiho. One would have been motivated to do so to allow the subscriber may then leave the mode his is in and taken the incoming call. He can then go back and finish the ongoing call in the original mode.

6. As to claim 4, Nguyen discloses wherein said node is a Mobile Service Switching Center (see [0007], Mobile Switching Center (MSC-1, MSC-2 serving the MS).

7. As to claim 7, Nguyen discloses wherein said node is a base station controller (see figure 2, BS-1, BS-2).

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8. As to claim 16, Laiho discloses a Mobile Service Switching Center for delivering a Short Message Service (SMS) message to a mobile station (MS) supporting both voice services and data services, said Mobile Services Switching Center comprising: means for determining whether said MS is currently involved in data session on a data only carrier (col. 1, line 56, col. 1, line 63; col. 3, lines 39-40; col. 3, line 43 – cause code);

Conversion logic for encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS over said data only carrier as an electronic mail message when said MS is involved in said data session (col. 3, lines 45-51).

However, Laiho is silent to disclosing wherein said means for determining comprises a feature code indicating that said MS is involved in said data session, said feature code being sent by said MS at the start of said data session.

Nguyen et al. discloses wherein said means for determining comprises a feature code indicating that said MS is involved in said data session, said feature code being sent by said MS at the start of said data session ([0016], The called MS has a Home Location Register (HLR) 15 that stores the called MS's user profile, status, and location information. A second MSC (MSC-2) 16 communicates through a second Base Station (BS-2) 17 with a calling MS 18. When the called MS switches to voice mode, it registers with the HLR. Thereafter, when the calling MS places a voice call to the called MS, MSC-2 queries the HLR for location information. The HLR obtains a routing number from MSC-1 and returns the routing number to MSC-2. The voice call is then set up)

([0019], Thus, if the calling MS 18 then attempts to place a voice call to the called MS while it is in data mode, the call is immediately routed to voice mail, or the calling MS automatically receives a voice announcement that the subscriber is not available because the called MS has canceled its registration with the HLR.) ([0023], The HLR puts the called MS in a new state called "data" in the user profile to indicate that the called MS is operating in the data mode) ([0030], The HLR looks for the DMI in the user profile at 34 and determines that the called MS is in the data mode)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said means for determining comprises a feature code indicating that said MS is involved in said data session, said feature code being sent by said MS at the start of said data session taught by Nguyen into the system of Laiho. One would have been motivated to do so to allow the subscriber may then leave the mode his is in and taken the incoming call. He can then go back and finish the ongoing call in the original mode.

9. As to claim 17, Nguyen et al. discloses wherein said feature code is stored in a Visitor Location Register (Home Location Register, HLR) associated with said Mobile Service Switching Center (Mobile Switching Center, MSC) ([0007]).

10. As to claim 32, Laiho discloses a method for delivering a Short Message Service (SMS) message within a network capable of providing both voice services on a voice carrier and data services on a data only carrier, said method comprising:

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Receiving at a node in wireless communication with a mobile station (MS) supporting both voice services and data services said SMS message (col. 1, line 56; col. 1, line 63; col. 3, lines 39-40;

Determining whether said MS is currently involved in a data session on said data only carrier (col. 3, line 43 – cause code);

If not, routing said SMS message to said MS via said voice carrier (col.3, lines 38-40);

If so, encapsulating said SMS message into an Internet Protocol (IP) packet, and routing said SMS message to said MS as an electronic mail message without disrupting said data session (col. 3, lines 40-41, lines 46-51).

However, Laiho (6,061,572) is silent to disclosing wherein said MS transmits to said node a feature code indicating that said MS is in data mode when said data session begins from said MS to said node

Nguyen et al. discloses wherein said MS transmits to said node a feature code indicating that said MS is in data mode when said data session begins from said MS to said node ([0016], The called MS has a Home Location Register (HLR) 15 that stores the called MS's user profile, status, and location information. A second MSC (MSC-2) 16 communicates through a second Base Station (BS-2) 17 with a calling MS 18. When the called MS switches to voice mode, it registers with the HLR. Thereafter, when the calling MS places a voice call to the called MS, MSC-2 queries the HLR for location information. The HLR obtains a routing number from MSC-1 and returns the routing number to MSC-2. The voice call is then set up) ([0019], Thus, if the calling MS 18 then attempts to place a voice call to the called MS while it is in data mode, the call is

immediately routed to voice mail, or the calling MS automatically receives a voice announcement that the subscriber is not available because the called MS has canceled its registration with the HLR.) ([0023], The HLR puts the called MS in a new state called "data" in the user profile to indicate that the called MS is operating in the data mode) ([0030], The HLR looks for the DMI in the user profile at 34 and determines that the called MS is in the data mode).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said MS transmits to said node a feature code indicating that said MS is in data mode when said data session begins from said MS to said node taught by Nguyen into the system of Laiho. One would have been motivated to do so to allow the subscriber may then leave the mode his is in and taken the incoming call. He can then go back and finish the ongoing call in the original mode.

11. As to claim 33, Nguyen discloses storing said feature code within a Visitor Location Register associated with said Mobile Service Switching Center ([0016], The called MS has a Home Location Register (HLR) 15 that stores the called MS's user profile, status, and location information. A second MSC (MSC-2) 16 communicates through a second Base Station (BS-2) 17 with a calling MS 18. When the called MS switches to voice mode, it registers with the HLR. Thereafter, when the calling MS places a voice call to the called MS, MSC-2 queries the HLR for location information. The HLR obtains a routing number from MSC-1 and returns the routing number to MSC-2. The voice call is then set up) ([0019], Thus, if the calling MS 18 then attempts to place a voice call to the called MS while it is in data mode, the call is immediately routed

to voice mail, or the calling MS automatically receives a voice announcement that the subscriber is not available because the called MS has canceled its registration with the HLR.) ([0023], The HLR puts the called MS in a new state called "data" in the user profile to indicate that the called MS is operating in the data mode) ([0030], The HLR looks for the DMI in the user profile at 34 and determines that the called MS is in the data mode).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined system (Laiho – Nguyen) in view of Sexton et al. (U.S. Patent No. 6,614,772).

As to claim 14, the combination system (Laiho – Nguyen) discloses the limitations of claim 3 above.

However, the combined system (Laiho – Nguyen) is silent to disclosing wherein said network is a Code Division Multiple Access 2000 network

Sexton et al. discloses wherein said network is a Code Division Multiple Access 2000 network. (col. 2, lines 1-8

(All digital cellular systems, including EIA/TIA 553 Analog Mobile Phone System (AMPS), IS-136 Time Division Multiple Access (TDMA) digital system, IS-95A Code Division Multiple Access (CDMA) digital system, J-STD-008 (CDMA) PCS System, J-STD-007 (PCS1900), J-STD-009 (TDMA), Global Standard for Mobiles (GSM) have data transmission capabilities).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said network is a Code Division Multiple Access network taught by Lee into the combined system (Laiho – Nguyen). One would have been motivated to do so to compatible with existing networks and allow easy adoption.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 11, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Spielman et al. (U.S. Patent No. 6,560,318).

As to claim 3, Laiho discloses a telecommunication system for delivering a Short Message Service (SMS) message within a network capable of providing both voice services on a voice carrier and data services on a data only carrier, said telecommunication system comprising:

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A mobile station (MS) supporting both voice services and data services, said MS being currently involved in a data session on said data only carrier (col. 1, line 56; col. 1, line 63; col. 3, lines 39-40);

A node in wireless communication with said MS for receiving said SMS message encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS as an electronic mail message over said data only carrier without disrupting said data session (col. 3, lines 45-51);

Wherein said node further operates to check whether said MS is involved in said data session prior to encapsulating said SMS message into said IP packet, said node transmitting said SMS message to said MS when said MS is not involved in said data session (col. 3, lines 37-38);

A short message service center for routing said SMS to said node (see figure 1, SMSC, MS).

However, Laiho is silent to disclosing wherein said node tags said electronic mail message with a received indicator, said received indicator generate a response message to said node when said MS opens said electronic mail message, said node transmitting a delivery notification to said Short Message Service Center upon receipt said response message.

Spielman et al. discloses wherein said node tags said electronic mail message with a received indicator, said received indicator generate a response message to said node when said MS opens said electronic mail message, said node transmitting a delivery notification to said Short Message Service Center upon receipt said response

message (figure 1, SMS, col. 11, lines 15-25, The notification attribute 82f is another example of a first object class where two notification device tags (MWI=8945551212, PAGER=user@page.network.com) are stored for notification via a message waiting indicator and a pager. Since the paging protocol uses SMTP, the pager notification device tag has sufficient information for generation of the notification message for the corresponding pager to receive the page as an e-mail client via the notification delivery process 14a. In addition, the notification attribute 82f illustrates that multiple device tags may be used to send a notification to respective multiple devices in response to the corresponding and, namely reception of an urgent voicemail message).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said node tags said electronic mail message with a received indicator, said received indicator generate a response message to said node when said MS opens said electronic mail message, said node transmitting a delivery notification to said Short Message Service Center upon receipt said response message taught by Spielman into the system of Laiho. One would have been motivated to do so to provide notification information for non-local devices due to the nature in which the subscriber preference information and device information are stored and managed in the subscriber directory.

16. As to claim 38, Laiho discloses a telecommunication system for delivering a Short Message Service (SMS) message within a network capable of providing both voice services on a voice carrier and data services on a data only carrier, said telecommunication system comprising:

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A mobile station (MS) supporting both voice services and data services, said MS being currently involved in a data session on said data only carrier (col. 1, line 56; col. 1, line 63; col. 3, lines 39-40);

A node in wireless communication with said MS for receiving said SMS message encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS as an electronic mail message over said data only carrier without disrupting said data session (col. 3, lines 45-51);

Wherein said node further operates to check whether said MS is involved in said data session prior to encapsulating said SMS message into said IP packet, said node transmitting said SMS message to said MS when said MS is not involved in said data session (col. 3, lines 37-38);

A short message service center for routing said SMS to said node (see figure 1, SMSC, MS);

Means for receiving said SMS message from a Short Message Service Center (col. 4, lines 7-10).

However, Laiho fails to disclose tagging said electronic mail message with a received indicator; generating, by said received indicator, a response message to said node when said MS opens said electronic mail message; and transmitting a delivery notification from said node to said Short Message Service Center upon receipt of said response message.

Spielman et al. discloses tagging said electronic mail message with a received indicator; generating, by said received indicator, a response message to said node

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when said MS opens said electronic mail message; and transmitting a delivery notification from said node to said Short Message Service Center upon receipt of said response message (figure 1, SMS, col. 11, lines 15-25, The notification attribute 82f is another example of a first object class where two notification device tags (MWI=8945551212, PAGER=user@page.network.com) are stored for notification via a message waiting indicator and a pager. Since the paging protocol uses SMTP, the pager notification device tag has sufficient information for generation of the notification message for the corresponding pager to receive the page as an e-mail client via the notification delivery process 14a. In addition, the notification attribute 82f illustrates that multiple device tags may be used to send a notification to respective multiple devices in response to the corresponding and, namely reception of an urgent voicemail message).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate tagging said electronic mail message with a received indicator; generating, by said received indicator, a response message to said node when said MS opens said electronic mail message; and transmitting a delivery notification from said node to said Short Message Service Center upon receipt of said response message taught by Spielman into the system of Laiho. One would have been motivated to do so to provide notification information for non-local devices due to the nature in which the subscriber preference information and device information are stored and managed in the subscriber directory.

Claim Rejections - 35 USC § 103

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17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Heutschi et al. (U.S. Patent No. 6,968,383).

As to claim 13, Laiho discloses a telecommunication system for delivering a Short Message Service (SMS) message within a network capable of providing both voice services on a voice carrier and data services on a data only carrier, said telecommunication system comprising:

A mobile station (MS) supporting both voice services and data services, said MS being currently involved in a data session on said data only carrier (col. 1, line 56; col. 1, line 63; col. 3, lines 39-40);

A node in wireless communication with said MS for receiving said SMS message encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS as an electronic mail message over said data only carrier without disrupting said data session (col. 3, lines 45-51);

Wherein said node further operates to check whether said MS is involved in said data session prior to encapsulating said SMS message into said IP packet, said node

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transmitting said SMS message to said MS when said MS is not involved in said data session (col. 3, lines 37-38);

Wherein said electronic mail message is routed to said MS using an electronic mail address for said MS (col. 3, lines 45-51).

However, Laiho is silent to disclosing wherein said electronic mail address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS.

Heutschi et al. discloses Wherein said electronic mail message is routed to said MS using an electronic mail address for said MS; and wherein said electronic mail address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS (col. 3, lines 55-65, These transmission criteria are linked in the data base 50 with the address of the user to whom the data have to be transmitted. A list of user addresses can preferably be entered, for example a list of all members of an association or a firm, who are supposed to receive certain data. The transmission of advertisements to all users or to larger user groups can thereby be programmed, for example. Depending upon the broadcasting channel, the user address can be formulated differently; it corresponds, for example, to the IMSI (international mobile subscriber identity) or to the MSISDN (mobile subscriber identification number) of the user in the case of a SMS message, an e-mail address in the case of an e-mail, a normal mailing address in the case of a normal mail dispatch, etc.).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said electronic mail address includes an

International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS into the system of Laiho. One would have been motivated to do so to offer data broadcast which avoids these drawbacks.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Spielman et al. (U.S. Patent No. 6,560,318).

As to claim 19, Laiho discloses a Mobile Service Switching Center for delivering a Short Message Service (SMS) message to a mobile station (MS) supporting both voice services and data services, said Mobile Services Switching Center comprising: means for determining whether said MS is currently involved in data session on a data only carrier (col. 1, line 56, col. 1, line 63; col. 3, lines 39-40; col. 3, line 43 – cause code);

Conversion logic for encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS over said data only carrier as an electronic mail message when said MS is involved in said data session (col. 3, lines 45-51);

However, Laiho is silent to disclosing receiving said SMS message from a short message service center wherein said conversion logic tags said electronic mail message with a received indicator, said received indicator generate a response message to said node when said MS opens said electronic mail message, said node transmitting a delivery notification to said Short Message Service Center upon receipt said response message.

Spielman et al. discloses receiving said SMS message from a short message service center wherein said conversion logic tags said electronic mail message with a received indicator, said received indicator generate a response message to said node when said MS opens said electronic mail message, said node transmitting a delivery notification to said Short Message Service Center upon receipt said response message (figure 1, SMS, col. 11, lines 15-25, The notification attribute 82f is another example of a first object class where two notification device tags (MWI=8945551212, PAGER=user@page.network.com) are stored for notification via a message waiting indicator and a pager. Since the paging protocol uses SMTP, the pager notification device tag has sufficient information for generation of the notification message for the corresponding pager to receive the page as an e-mail client via the notification delivery process 14a. In addition, the notification attribute 82f illustrates that multiple device tags may be used to send a notification to respective multiple devices in response to the corresponding and, namely reception of an urgent voicemail message).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate receiving said SMS message from a short message service

center wherein said conversion logic tags said electronic mail message with a received indicator, said received indicator generate a response message to said node when said MS opens said electronic mail message, said node transmitting a delivery notification to said Short Message Service Center upon receipt said response message taught by Spielman into the system of Laiho. One would have been motivated to do so to provide notification information for non-local devices due to the nature in which the subscriber preference information and device information are stored and managed in the subscriber directory.

21. As to claim 20, Spielman discloses transmitting a delivery notification message to said Short Message Service Center upon receipt of said response message (figure 1, SMS, col. 11, lines 15-25, The notification attribute 82f is another example of a first object class where two notification device tags (MWI=8945551212, PAGER=user@page.network.com) are stored for notification via a message waiting indicator and a pager. Since the paging protocol uses SMTP, the pager notification device tag has sufficient information for generation of the notification message for the corresponding pager to receive the page as an e-mail client via the notification delivery process 14a. In addition, the notification attribute 82f illustrates that multiple device tags may be used to send a notification to respective multiple devices in response to the corresponding and, namely reception of an urgent voicemail message).

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Heutschi et al. (U.S. Patent No. 6,968,383).

As to claim 22, Laiho discloses a Mobile Service Switching Center for delivering a Short Message Service (SMS) message to a mobile station (MS) supporting both voice services and data services, said Mobile Services Switching Center comprising: means for determining whether said MS is currently involved in data session on a data only carrier (col. 1, line 56, col. 1, line 63; col. 3, lines 39-40; col. 3, line 43 – cause code); Conversion logic for encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS over said data only carrier as an electronic mail message when said MS is involved in said data session (col. 3, lines 45-51); electronic mail message is routed to said MS using an electronic mail address for said MS (col. 3, line 62 – col.4, line 2).

However, Laiho is silent to disclosing wherein said electronic mail address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS.

Heutschi et al. discloses Wherein said electronic mail message is routed to said MS using an electronic mail address for said MS; and wherein said electronic mail

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address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS (col. 3, lines 55-65, These transmission criteria are linked in the data base 50 with the address of the user to whom the data have to be transmitted. A list of user addresses can preferably be entered, for example a list of all members of an association or a firm, who are supposed to receive certain data. The transmission of advertisements to all users or to larger user groups can thereby be programmed, for example. Depending upon the broadcasting channel, the user address can be formulated differently; it corresponds, for example, to the IMSI (international mobile subscriber identity) or to the MSISDN (mobile subscriber identification number) of the user in the case of a SMS message, an e-mail address in the case of an e-mail, a normal mailing address in the case of a normal mail dispatch, etc.).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said electronic mail address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS into the system of Laiho. One would have been motivated to do so to offer data broadcast which avoids these drawbacks.

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

25. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Nguyen et al. (U.S. Patent No. 2002/0111167).

As to claim 24, Laiho discloses a system for delivering a Short Message Service (SMS) message to a mobile station (MS) supporting both voice services and data services, said system comprising:

Means for determining whether said MS is currently involved in a data session on a data only carrier (col. 1, lines 56, col. 1, line 63, col. 3, lines 39-40, col. 3, line 43 – cause code);

Conversion logic for encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS over said data only carrier as an electronic mail message when said MS is involved in said data session (col. 3, lines 45-51).

However, Laiho fails to disclose that the system is a Base Station Controller.

Nguyen discloses that the system is a Base Station Controller (see figure 2, Base Station BS-1); Wherein said means for determining comprises a feature code indicating that said MS is involved in said data session, said feature code being sent by said MS at the start of said data session ([0016], The called MS has a Home Location Register (HLR) 15 that stores the called MS's user profile, status, and location information. A second MSC (MSC-2) 16 communicates through a second Base Station (BS-2) 17 with a calling MS 18. When the called MS switches to voice mode, it registers with the HLR. Thereafter, when the calling MS places a voice call to the called MS, MSC-2 queries the

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HLR for location information. The HLR obtains a routing number from MSC-1 and returns the routing number to MSC-2. The voice call is then set up) ([0019], Thus, if the calling MS 18 then attempts to place a voice call to the called MS while it is in data mode, the call is immediately routed to voice mail, or the calling MS automatically receives a voice announcement that the subscriber is not available because the called MS has canceled its registration with the HLR.) ([0023], The HLR puts the called MS in a new state called "data" in the user profile to indicate that the called MS is operating in the data mode) ([0030], The HLR looks for the DMI in the user profile at 34 and determines that the called MS is in the data mode)

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Wherein said means for determining comprises a feature code indicating that said MS is involved in said data session, said feature code being sent by said MS at the start of said data session taught by Nguyen into the system of Laiho. One would have been motivated to do so to allow the subscriber may then leave the mode his is in and taken the incoming call. He can then go back and finish the ongoing call in the original mode.

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Nguyen et al. (U.S. Patent No. 2002/0111167) and in further view of Spielman et al. (U.S. Patent No. 6,560,318).

As to claim 27, Laiho discloses a system for delivering a Short Message Service (SMS) message to a mobile station (MS) supporting both voice services and data services, said system comprising:

Means for determining whether said MS is currently involved in a data session on a data only carrier (col. 1, lines 56, col. 1, line 63, col. 3, lines 39-40, col. 3, line 43 – cause code);

Conversion logic for encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS over said data only carrier as an electronic mail message when said MS is involved in said data session (col. 3, lines 45-51).

However, Laiho fails to disclose that the system is a Base Station Controller.

Nguyen discloses that the system is a Base Station Controller (see figure 2, Base Station BS-1);

It would have been obvious for one skilled in the art at the time of the invention to include a BSC. The motivation to modify Laiho with Nguyen is so that increased network capacity can be achieved.

However, the combined system (Laiho – Nguyen) are silent to disclosing wherein said conversion logic tags said electronic mail message with a received indicator, said received indicator generating a response message to said Base Station Controller when said MS opens said electronic mail message.

Spielman et al. discloses wherein said conversion logic tags said electronic mail message with a received indicator, said received indicator generating a response message to said Base Station Controller when said MS opens said electronic mail message (figure 1, SMS, col. 11, lines 15-25, The notification attribute 82f is another example of a first object class where two notification device tags (MWI=8945551212, PAGER=user@page.network.com) are stored for notification via a message waiting indicator and a pager. Since the paging protocol uses SMTP, the pager notification device tag has sufficient information for generation of the notification message for the corresponding pager to receive the page as an e-mail client via the notification delivery process 14a. In addition, the notification attribute 82f illustrates that multiple device tags may be used to send a notification to respective multiple devices in response to the corresponding and, namely reception of an urgent voicemail message).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said node tags said electronic mail message with a received indicator, said received indicator generate a response message to said node when said MS opens said electronic mail message, said node transmitting a delivery notification to said Short Message Service Center upon receipt said response message taught by Spielman into the system of Laiho. One would have been motivated to do so

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to provide notification information for non-local devices due to the nature in which the subscriber preference information and device information are stored and managed in the subscriber directory.

28. As to claim 28, Spielman et al. discloses transmitting a delivery notification message to said Short Message Service Center upon receipt of said response message (figure 1, SMS, col. 11, lines 15-25, The notification attribute 82f is another example of a first object class where two notification device tags (MWI=8945551212, PAGER=user@page.network.com) are stored for notification via a message waiting indicator and a pager. Since the paging protocol uses SMTP, the pager notification device tag has sufficient information for generation of the notification message for the corresponding pager to receive the page as an e-mail client via the notification delivery process 14a. In addition, the notification attribute 82f illustrates that multiple device tags may be used to send a notification to respective multiple devices in response to the corresponding and, namely reception of an urgent voicemail message).

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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30. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Heutschi et al. (U.S. Patent No. 6,968,383).

As to claim 30, Laiho discloses a telecommunication system for delivering a Short Message Service (SMS) message within a network capable of providing both voice services on a voice carrier and data services on a data only carrier, said telecommunication system comprising:

A mobile station (MS) supporting both voice services and data services, said MS being currently involved in a data session on said data only carrier (col. 1, line 56; col. 1, line 63; col. 3, lines 39-40);

A node in wireless communication with said MS for receiving said SMS message encapsulating said SMS message into an Internet Protocol (IP) packet and routing said SMS message to said MS as an electronic mail message over said data only carrier without disrupting said data session (col. 3, lines 45-51);

Wherein said node further operates to check whether said MS is involved in said data session prior to encapsulating said SMS message into said IP packet, said node transmitting said SMS message to said MS when said MS is not involved in said data session (col. 3, lines 37-38);

Wherein said electronic mail message is routed to said MS using an electronic mail address for said MS (col. 3, lines 45-51).

However, Laiho is silent to disclosing wherein said electronic mail address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS.

Heutschi et al. discloses Wherein said electronic mail message is routed to said MS using an electronic mail address for said MS; and wherein said electronic mail address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS (col. 3, lines 55-65, These transmission criteria are linked in the data base 50 with the address of the user to whom the data have to be transmitted. A list of user addresses can preferably be entered, for example a list of all members of an association or a firm, who are supposed to receive certain data. The transmission of advertisements to all users or to larger user groups can thereby be programmed, for example. Depending upon the broadcasting channel, the user address can be formulated differently; it corresponds, for example, to the IMSI (international mobile subscriber identity) or to the MSISDN (mobile subscriber identification number) of the user in the case of a SMS message, an e-mail address in the case of an e-mail, a normal mailing address in the case of a normal mail dispatch, etc.).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said electronic mail address includes an International Mobile subscriber Identity number of said MS at an Internet Service provider of said MS into the system of Laiho. One would have been motivated to do so to offer data broadcast which avoids these drawbacks.

Claim Rejections - 35 USC § 103

31. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

32. Claims 36, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laiho (U.S. Patent No. 6,061,572) in view of Patel et al. (U.S. Patent No. 6,400,950 B1).

As to claim 36, Laiho discloses a method for delivering a Short Message Service (SMS) message within a network capable of providing both voice services on a voice carrier and data services on a data only carrier, said method comprising:

Receiving at a node in wireless communication with a mobile station (MS) supporting both voice services and data services said SMS message (col. 1, line 56; col. 1, line 63; col. 3, lines 39-40;

Determining whether said MS is currently involved in a data session on said data only carrier (col. 3, line 43 – cause code);

If not, routing said SMS message to said MS via said voice carrier (col. 3, lines 38-40);

If so, encapsulating said SMS message into an Internet Protocol (IP) packet, and routing said SMS message to said MS as an electronic mail message without disrupting said data session (col. 3, lines 40-41, lines 46-51).

However, Laiho fails to disclose wherein said node is a Base Station Controller, and wherein said step of routing further comprises: determining, by said Base Station Controller, routing information associated with said MS for said data session; and delivering said electronic mail message from said Base Station Controller to said MS using said routing information.

Patel et al. discloses wherein said node is a Base Station Controller, and wherein said step of routing further comprises: determining, by said Base Station Controller,

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routing information associated with said MS for said data session; and delivering said electronic mail message from said Base Station Controller to said MS using said routing information (col. 4, lines 6-18, when an MS 20 wants to register with the H.323 system 100, e.g., when the MS 20 powers on, the MS 20 transmits a location update message to the BTS 24, which forwards the location update message to the A-bis Gateway 140. The A-bis Gateway 140 converts the location update message into an Internet Protocol (IP) packet for transmission to the MSC 14 via BSC 23. The MSC 14, in turn, transmits an H.225 Registration Request (RRQ) message 115, which includes a subscriber number and other alias'of the IMSI number 122, such as an e-mail address, to the Gatekeeper 180 over the LAN backbone 110. Thereafter, the Gatekeeper 180 stores routing information 187, e.g., the IP address for the MSC 14 and an associated port number for the MS 20, within a subscriber record database 185 within the Gatekeeper 180).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate wherein said node is a Base Station Controller, and wherein said step of routing further comprises: determining, by said Base Station Controller, routing information associated with said MS for said data session; and delivering said electronic mail message from said Base Station Controller to said MS using said routing information taught by Patel into the system of Laiho. One would have been motivated to do so to provide efficient de-registration of multiple mobile station utilizing H.323 protocols.

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33. As to claim 39, Patel et al. discloses routing said electronic mail message to said MS using an electronic mail address for said MS (col. 4, lines 6-18, when an MS 20 wants to register with the H.323 system 100, e.g., when the MS 20 powers on, the MS 20 transmits a location update message to the BTS 24, which forwards the location update message to the A-bis Gateway 140. The A-bis Gateway 140 converts the location update message into an Internet Protocol (IP) packet for transmission to the MSC 14 via BSC 23. The MSC 14, in turn, transmits an H.225 Registration Request (RRQ) message 115, which includes a subscriber number and other alias'of the IMSI number 122, such as an e-mail address, to the Gatekeeper 180 over the LAN backbone 110. Thereafter, the Gatekeeper 180 stores routing information 187, e.g., the IP address for the MSC 14 and an associated port number for the MS 20, within a subscriber record database 185 within the Gatekeeper 180).

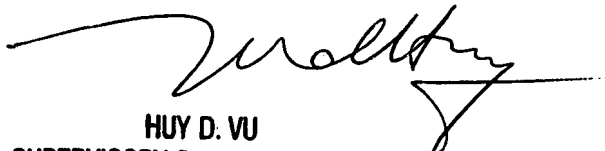
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571) 272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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